

**Preparation of Palladium
Nanoclusters with both Hydrophilic
and Hydrophobic Properties by
Using Time-dependent and
Self-regulated Surfactant
Chien-Liang Lee, Chi-Chao Wan***

This paper describes a novel method to synthesize nanometer-scale Pd particles which can stably be dispersed in both aqueous environments and organic solvent. Another feature of this method is that the reduction is effected by the

surfactant itself without the need of any externally added reducing agent. Still another feature of this method is that the dual-hydrophilic-hydrophobic property is obtained via controlling the duration of reaction.